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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,678	12/11/2003	Jung-Hyun Kim	8045-45 (PX1601-US/SSD)	8949
22150 7590 07/26/2007 F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797			EXAMINER CHRISS, ANDREW W	
			ART UNIT 2609	PAPER NUMBER
			MAIL DATE 07/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/733,678

Applicant(s)

KIM, JUNG-HYUN

Examiner

Andrew Chriss

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-24** rejected under 35 U.S.C. 102(b) as being anticipated by Milway et al (United States Patent 6,122,279), hereinafter Milway. Applicant claims a method of switching packets and a method of switching cells. *Newton's Telecom Dictionary* defines a cell as "a fixed-size packet." Therefore, for purposes of examination, Examiner asserts that prior art teaching a method of switching cells also teaches a method of switching packets.

Regarding Claims 1 and 11, Milway teaches a method of switching cells (and thereby, packets) wherein a plurality of routing tables are updated (prepared), by a switch controller (column 11, lines 8-9). Further, Milway teaches an index in the routing table 720 which contains Route Words 540 and corresponding New Header Words 550 (column 19, lines 40-42) for each output port, thus corresponding each table to at least one output port of a plurality of output ports. Milway also teaches storing a plurality of input port designations in each table, by reading the port's identifying number, which corresponds to at least one input port, within the cell header (column 4, lines 27-29). Milway also teaches hashing a routing identifier (equivalent to Applicant's claimed packet/cell identifier), in combination with the port's identifying number (equivalent to Applicant's input port designation) to place in the routing table, thus storing a plurality of packet/cell identifiers being stored in each routing table (column 4, line 26). Milway further teaches that ports contain received cells in their buffers, thus having inputted at least one packet into an input port of the plurality of input ports (column 4, lines 20-22). Control logic in all ports will read the old header and routing tag simultaneously with the switch controller (column 4, lines 32-34), thus locating a packet/cell identifier from the plurality of packet/cell identifiers stored in each table that matches the packet/cell identifier of the at least one packet. Lastly, Milway teaches that the routing tag specifies which output ports should receive the cell (column 4, lines 31-32). In order to connect an input port with the one or more output ports, Milway teaches that the switch controller issues a cell copy command causing the input port to place the information payload of the current cell onto the switch bus where it will be read by the selected output ports (column 4, lines 35-39).

Regarding Claims 2 and 12, Milway teaches that the switch controller reads a routing identifier (packet/cell identifier) with the port's identifying number, thus having the packet/cell identifier stored in each table identifies an input port of the plurality of input ports.

Regarding Claims 3 and 13, Milway teaches the packet/cell identifier stored in the routing table contains Route Words and corresponding New Header Words for each output port 210 (column 19, lines 40-42), thus having a packet/cell identifier stored in the routing table that identifies an output port in the plurality of output ports.

Regarding Claims 4 and 14, Milway teaches that the switch controller reads a routing identifier (packet/cell identifier) with the port's identifying number (column 4, line 26), thus having the packet/cell identifier stored in each table identifies an input port of the plurality of input ports.

Regarding Claims 5 and 15, Milway teaches the packet/cell identifier stored in the routing table contains Route Words and corresponding New Header Words for each output port 210 (column 19, lines 40-42), thus having the packet/cell identifier identifying an output port of the plurality of ports.

Regarding Claims 6 and 16, Milway teaches a multicast switching operation wherein "the Route Word 540 read after the first hashing operation has been performed will have its SWITCH COMMAND field 870 set to Indirect...The Indirect command indicates to switch controller 120 that the subsequent word is not a typical New Header Word 550 containing an ATM cell header, but rather an index to an auxiliary portion of routing table 720 which contains the Route Words 540 and corresponding New Header Words 550 for each output port 210-j

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involved in the current multicast transmission” (column 19, lines 34-47). Thus, the packet/cell identifier, which is stored in routing table 720, identifies a multicast packet.

Regarding Claims 7 and 17, see rejection of Claims 6 and 16 above.

Regarding Claim 8, Milway teaches that the routing table 720 is stored in DRAM memory (column 13, lines 45-46), which is a type of semiconductor memory, as cited in Applicant’s specification (page 9, line 24 – page 10, line 1).

Regarding Claims 9 and 19, Milway teaches storing the cell identifier and the input port designation together as one datum (a routing index), shown in Figures 6A and 6B.

Regarding Claims 10 and 20, Milway teaches the packet/cell identifier stored in the routing table contains Route Words and corresponding New Header Words for each output port 210 (column 19, lines 40-42). Milway also teaches control logic in all ports read the old header and routing tag simultaneously with the switch controller (column 4, lines 32-34), thus determining an output port based on each table storing the located packet identifier.

Regarding Claim 18, Milway teaches that the routing table 720 is stored in DRAM memory, as described with regards to Claim 8 above.

Regarding Claim 21, Milway teaches a switching apparatus comprising a plurality of input ports (Figure 1, 150-1); a plurality of output ports (column 4, line 34); a plurality of routing tables (column 4, lines 7-8), which store a plurality of routing identifiers (equivalent to Applicant’s claimed packet/cell identifier) and port identifying number (equivalent to Applicant’s input port designation) (column 4, line 26), wherein each table corresponds to at least one output port (column 19, lines 40-42), and; a switch controller 120 (equivalent to Applicant’s claimed switching control unit), which issues a cell copy command causing the input

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port to place the information payload of the current cell onto the switch bus where it will be read by the selected output ports (column 4, lines 35-39).

Regarding Claim 22, Milway teaches a switch controller that issues a cell copy command causing the input port to place the information payload of the current cell onto the switch bus where it will be read by the selected output ports (column 4, lines 35-39), thus connecting the input port corresponding to the input port designation stored with the packet identifier of the at least one packet with the at least one output port.

Regarding Claim 23, see rejection of Claims 1 and 11 above.

Regarding Claim 24, Milway teaches a switching device for switching ATM cells (packets) (column 4, lines 2-3), which is a program storage device, containing system software (column 4, line 9) to execute the claimed method (see rejection of Claims 1, 11, and 23 above).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Chriss whose telephone number is 571-272-1774. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Garber can be reached on 571-270-1202. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Chriss
Examiner
Art Unit 2609

AC



CHARLES D. GARBER
SUPERVISORY PATENT EXAMINER